

**Amendments to the Claims:** This listing of claims will replace all prior versions, and listings, of claims in the application

Listing of Claims:

1. - 20. (Cancelled)

21. (Currently Amended) The hinge mechanism of a portable phone comprising:

a ~~third~~-housing having a ~~third~~-rotary chamber with an opened top portion and a ~~third~~ hinge chamber formed at a side of the ~~third~~-rotary chamber, for mechanically connecting a cover to a body;

a ~~third~~-hinge part which is installed to the ~~third~~-hinge chamber, for opening and closing the cover; and

a ~~third~~-rotary part which is installed to the ~~third~~-rotary chamber, for rotating the cover,

wherein the ~~third~~-rotary part includes a ~~third~~-cylinder which opens at a lower portion and has a ~~third~~-cylinder chamber, which has a ~~third~~-cylinder hole formed in an upper portion thereof and a ~~third~~-an arm projected from the upper portion thereof to be combined with the cover, and which has a ~~third~~-cylinder groove formed lengthwise thereon; a ~~third~~-compressed spring which is installed in the ~~third~~-cylinder chamber; a ~~third~~-rotary slip part which has a ~~third~~-rotary slip hole formed at a center portion thereof; a ~~third~~-fixed slip part which has a ~~third~~-polygonal hole formed at a center portion thereof and which has a ~~third~~-fixed slip surface on an upper portion; and a ~~third~~-center shaft which has a ~~third~~-polygonal projection to be combined with the ~~third~~ polygonal hole, and which is installed at a bottom surface of the ~~third~~-rotary chamber to sequentially extend the ~~third~~-polygonal hole, the ~~third~~-rotary slip hole, the ~~third~~-compressed spring and the ~~third~~-cylinder hole.

22. (Currently Amended) The hinge mechanism of the portable phone according to claim 21, wherein a pair of ~~third~~-balls is installed on the ~~third~~-rotary slip surface to be opposite to each other about the ~~third~~-rotary slip hole while a pair of ~~third~~-hemispheric grooves is formed on the ~~third~~-fixed slip surface to face the pair of the ~~third~~-balls, and a ~~third~~-guide recess is formed to communicate with the ~~third~~-hemispheric grooves.

23. (Currently Amended) The hinge mechanism of the portable phone according to claim 21, wherein a pair of ~~third~~-balls is installed on the ~~third~~-fixed slip surface to be opposite to each other about the ~~third~~-fixed slip hole while a pair of ~~third~~-hemispheric grooves is formed on the ~~third~~-rotary slip surface to face the pair of the ~~third~~-balls, and a ~~third~~-guide recess is formed to communicate with the ~~third~~-hemispheric grooves.

24. (Currently Amended) The hinge mechanism of the portable phone according to claim 21, wherein a pair of ~~third~~-projections is installed on the ~~third~~-rotary slip surface to be opposite to each other about the ~~third~~-rotary slip hole while a pair of ~~third~~-hemispheric grooves is formed on the ~~third~~-fixed slip surface to face the pair of the ~~third~~-projections, and ~~third~~-guide recess is formed to communicate with the ~~third~~-hemispheric grooves.

25. (Currently Amended) The hinge mechanism of the portable phone according to claim 21, wherein a ~~third~~-cylinder projection is formed on an outer peripheral surface of the ~~third~~ cylinder, and a pair of ~~third~~-stoppers is formed on opposite inner surfaces of the ~~third~~-rotary chamber, to which the ~~third~~-cylinder projection is latched.

26. (Currently Amended) The hinge mechanism of the portable phone according to claim 21, wherein the ~~third~~-housing has a ~~third~~-cutoff portion through which a wire enters the ~~third~~ rotary chamber to electrically connect the cover to the body.

27. (Currently Amended) The hinge mechanism of the portable phone according to claim 21, wherein a ~~third~~-an annular groove is formed at an end of the ~~third~~-center shaft, to which a ~~third~~-sealing is combined to fix the ~~third~~-cylinder to the ~~third~~-center shaft.

28. (Currently Amended) The hinge mechanism of the portable phone according to claim 21, wherein the ~~third~~-hinge chamber opens at a side thereof, which includes a ~~third~~-guide recess formed from the opened end to an interior thereof, and the ~~third~~-hinge part includes: a ~~third~~-hinge spring which is installed in the ~~third~~-hinge chamber; a ~~third~~-rotary hinge part which is inserted in the ~~third~~-hinge chamber to enclose the ~~third~~-hinge spring, which has a ~~third~~-rotary hinge hole formed at a center portion thereof, which has a ~~third~~-rotary hinge projection formed on an outer surface thereof to be combined with the ~~third~~-guide recess, and which has a ~~third~~ rotary hinge surface continuously and horizontally extending to the ~~third~~-rotary hinge hole while having two-wave type of bending when rotating each time; a ~~third~~-fixed hinge part which encloses the ~~third~~-hinge spring, which has a ~~third~~-fixed hinge hole corresponding to the ~~third~~

rotary hinge hole, and which has a ~~third~~-fixed hinge surface formed on a side thereof to be corresponding to the ~~third~~-rotary hinge surface and a ~~third~~-fixed hinge projection formed on the other side thereof to be fixed to the body; and a ~~third~~-hinge shaft extending through the ~~third~~ fixed hinge hole, the ~~third~~-rotary hinge hole and the ~~third~~-hinge spring to be fixed to the ~~third~~ hinge chamber.

29. (Currently Amended) The hinge mechanism of the portable phone according to claim 21, wherein the ~~third~~-hinge chamber opens at a side thereof, which includes a ~~third~~-guide recess formed from an opened end to an interior thereof, and the ~~third~~-hinge part includes: a ~~third~~-hinge spring which is installed to the ~~third~~-hinge chamber; a ~~third~~-rotary hinge part which is inserted in the ~~third~~-hinge chamber to enclose the ~~third~~-hinge spring, which has a ~~third~~-rotary hinge hole formed at a center portion thereof, and which has a ~~third~~-rotary hinge projection formed on an outer surface to be combined to the ~~third~~-guide recess and a ~~third~~-plain rotary hinge surface; a ~~third~~-fixed hinge part which encloses the ~~third~~-fixed hinge part, which has a ~~third~~-fixed hinge hole corresponding to the ~~third~~-rotary hinge hole, and which has a ~~third~~-fixed hinge surface formed on a side thereof to be corresponding to the ~~third~~-rotary hinge surface and a ~~third~~-fixed hinge projection formed on the other side to be fixed to the body; and a ~~third~~ hinge shaft extending through the ~~third~~-fixed hinge hole, the ~~third~~-rotary hinge hole and the ~~third~~-hinge spring to be fixed to the ~~third~~-hinge chamber.

30. (Currently Amended) The hinge mechanism of the portable phone according to claim 21, wherein the ~~third~~-hinge chamber opens at a top portion thereof, which has a ~~third~~-hinge chamber hole formed at a side thereof and a ~~third~~-guide recess formed lengthwise on an inner surface, and the ~~third~~-hinge part includes: a ~~third~~-hinge spring which is installed in the ~~third~~ hinge chamber; a ~~third~~-rotary hinge part which is inserted in the ~~third~~-hinge chamber to enclose the ~~third~~-hinge spring, which has a ~~third~~-hinge spring hole formed at a center portion thereof, and which a ~~third~~-rotary hinge projection formed on an outer surface thereof to be combined with the ~~third~~-guide recess and a ~~third~~-rotary hinge surface formed at a side thereof; a ~~third~~ fixed hinge part which encloses the ~~third~~-fixed hinge part, which has a ~~third~~-fixed hinge hole corresponding to the ~~third~~-rotary hinge hole, and which has a ~~third~~-fixed hinge surface formed at a side thereof to be corresponding to the ~~third~~-rotary hinge surface and a ~~third~~-fixed hinge projection formed on the other side thereof to be fixed to the body; and a ~~third~~-hinge shaft extending through the ~~third~~-fixed hinge hole, the ~~third~~-rotary hinge hole and the ~~third~~-hinge spring to be fixed to the ~~third~~-hinge chamber.

31. (Currently Amended) The hinge mechanism of the portable phone according to claim 21, wherein the ~~third~~-hinge chamber opens at a top portion thereof, which has a ~~third~~-hinge chamber hole formed at a side thereof and which has a ~~third~~-guide recess including a horizontal groove formed lengthwise on an inner surface thereof and a vertical groove being normal to the horizontal groove to be connected to the opening, and the ~~third~~-hinge part includes: a ~~third~~ hinge spring which is installed to the ~~third~~-hinge chamber; a ~~third~~-hinge part which is inserted in the ~~third~~-hinge chamber to enclose the ~~third~~-hinge spring, which has a ~~third~~-rotary hinge hole formed at a center portion thereof, and which has a ~~third~~-rotary hinge projection formed on an outer surface thereof to be combined to the ~~third~~-guide groove and which has a ~~third~~-rotary hinge surface formed at a surface; a ~~third~~-fixed hinge part which encloses the ~~third~~-fixed hinge part, which has a ~~third~~-fixed hinge hole corresponding to the ~~third~~-rotary hinge hole, and which has a ~~third~~-fixed hinge surface formed on a side thereof to be corresponding to the ~~third~~-rotary hinge surface and a ~~third~~-fixed projection formed on the other side to be fixed to the body; and a ~~third~~-hinge shaft extending through the ~~third~~-fixed hinge hole, the ~~third~~-rotary hinge hole and the ~~third~~-hinge spring to be fixed to the ~~third~~-hinge chamber.

32. (Currently Amended) The hinge mechanism of the portable phone according to claim 21, wherein the ~~third~~-hinge part includes: a ~~third~~-hinge housing which has a ~~third~~-hinge housing chamber with an opened top portion, which has a ~~third~~-guide groove formed lengthwise on a side wall thereof, and a ~~third~~-hinge spring projection formed at the other side thereof; a ~~third~~ rotary hinge part which is installed to the ~~third~~-hinge housing, which has a ~~third~~-rotary hinge projection formed on an outer surface to be inserted in ~~third~~-guide recess and a ~~third~~-hinge hole formed at a center portion thereof, and which has a ~~third~~-rotary hinge surface continuously and horizontally extending to the ~~third~~-hinge hole while having two-wave type of bending when rotating each time; a ~~third~~-fixed hinge part which is rotatably installed to the ~~third~~-hinge housing, which has a ~~third~~-fixed hinge surface formed at a side thereof to be corresponding to the ~~third~~-rotary hinge surface, which has a ~~third~~-hinge shaft formed on the ~~third~~-fixed hinge surface to be inserted in the ~~third~~-rotary hinge hole, and which has a ~~third~~-fixed hinge projection formed at the other side thereof to be inserted in the ~~third~~-hinge housing hole; and a ~~third~~-hinge spring which is installed to the ~~third~~-hinge housing so that an end of the ~~third~~-hinge spring is combined to the ~~third~~-hinge spring projection and the other end elastically supports the second rotary hinge part.

33. - 67. (Canceled)

68. (Previously Presented) The hinge mechanism of the portable phone according to claim 21, wherein a camera lens is attached to an inner surface or outer surface of the cover to take a picture, and wherein a control switch is installed to a side of the body to control an operation of the camera lens.

69. (Previously Presented) The hinge mechanism of portable phone according claim 21, wherein a camera lens is attached to an inner surface or outer surface of the body to take a picture, and wherein a control switch is installed to a side of the body to control an operation of the camera lens.

70. (Currently Amended) The hinge mechanism of a portable phone comprising:

a ~~third~~-housing having a ~~third~~-rotary chamber with an opened top portion and a ~~third~~ hinge chamber formed at a side of the ~~third~~-rotary chamber, for mechanically connecting a cover to a body;

a ~~third~~-hinge part which is installed to the ~~third~~-hinge chamber, for opening and closing the cover; and

a ~~third~~-rotary part which is installed to the ~~third~~-rotary chamber, for rotating the cover, wherein the ~~third~~-rotary part includes a ~~third~~-cylinder which opens at a lower portion and has a ~~third~~-cylinder chamber, which has a ~~third~~-cylinder hole formed in an upper portion thereof and a ~~third~~-an arm projected from the upper portion thereof to be combined with the cover, and which has a ~~third~~-cylinder groove formed lengthwise thereon; a ~~third~~-compressed spring which is installed in the ~~third~~-cylinder chamber; a ~~third~~-rotary slip part which has a ~~third~~-rotary slip hole formed at a center portion thereof; a ~~third~~-fixed slip part which has a ~~third~~-polygonal hole formed at a center portion thereof and which has a ~~third~~-fixed slip surface on an upper portion; and a ~~third~~-center shaft which has a ~~third~~-polygonal projection to be combined with the ~~third~~ polygonal hole, and which is installed at a bottom surface of the ~~third~~-rotary chamber to sequentially extend the ~~third~~-polygonal hole, the ~~third~~-rotary slip hole, the ~~third~~-compressed spring and the ~~third~~-cylinder hole, wherein a pair of ~~third~~-projections is installed on the ~~third~~ rotary slip surface symmetrically about the center thereof, while a pair of ~~third~~-hemispheric grooves is formed on the ~~third~~-fixed slip surface to face the ~~third~~-projections or vice versa, and the ~~a~~ ~~third~~-guide recess is formed to communicate with the ~~third~~-hemispheric grooves.